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BRIEF TO
THE MINISTER OF NATURAL RESOURCES
OF THE
PROVINCE OF ONTARIO
ON THE
REPORT OF THE FLOOD PLAIN REVIEW COMMITTEE

JUNE, 1984

INTRODUCTION

In September, 1982 the Government released a policy statement for the management of flood plain lands in Ontario. Although municipal and public input had previously been sought, a number of municipalities and individuals expressed concern and asked that the Minister of Natural Resources provide them with an additional opportunity to comment on the policies.

Accordingly, in August 1983, the Minister of Natural Resources established the Flood Plain Review Committee (FPRC) to obtain public comment and review. Mr. James Taylor, Q.C., M.P.P. for Prince Edward-Lennox, was appointed to Chair the Committee. The members of the Committee represented a range of interests, including urban and rural municipalities, real estate, consulting engineers, mortgage and insurance, and a chamber of commerce.

The Committee held public meetings throughout Ontario during September and October, 1983, and received some 300 briefs from municipalities, conservation authorities, other agencies and individuals.

The Metropolitan Toronto and Region Conservation Authority prepared and submitted a brief to the Flood Plain Review Committee in October of 1983. This brief was also circulated to all of the Authority's member municipalities. The Authority addressed 3 main issues regarding flood plain management:

(1) Regulatory Flood Criteria
(2) Flood Plain Management Implementation
(3) Public Information and Consultation

and made 5 recommendations to the Committee on these issues (see Appendix A).

Based on the input from the various public meetings and written briefs, the Flood Plain Review Committee has submitted their report. The Committee's report contains 13 recommendations which are included in Appendix B.

The Minister of Natural Resources, the Honourable Alan Pope, Q.C. tabled the Flood Plain Review Committee Report in the Legislature on March 29, 1984, and indicated that the report would be circulated to all interested parties and that comments would be requested by June 30, 1984.

Prior to the Authority preparing its brief to the Minister, staff were directed to meet with as many member municipalities as possible prior to the Authority preparing its brief. This would ensure that the comments of the Authority would reflect as much as possible, the opinions of its member and local municipalities.

At the time of writing this report staff will have met with both staff and political officials of 14 municipalities. Todate 7 have prepared reports and recommendations for forwarding to the Minister.

As a result of these discussions this brief is submitted to the Minister of Natural Resources as The Metropolitan Toronto and Region Conservation Authority's position with regards to the Flood Plain Reveiw Committee report.

The Flood Plain Review Committee's 13 recommendations included as Appendix B suggest many sweeping changes to the way the administration of flood plain management is handled presently. Changes are also suggested to the regulatory flood criteria. Again the Flood Plain Review Committee's recommendations can be grouped under the 3 main issues listed earlier. The general thrust of the recommendations can be summarized as follows:

Regulatory Flood Criteria

The Flood Plain Review Committee recommends that the 1:100 year flood become the minimum regulatory criteria with a higher level adopted only through public review and referral of the criteria to an appropriate hearing tribunal. The Flood Plain Review Committees's recommendations would also allow development within the 1:100 year flood plain unless flood proofing was not feasible or the channel hydraulics were affected adversely.

Flood Plain Management Implementation

The Flood Plain Review Committee's recommendations would give the responsibility for the administration of flood plain management to the municipalities with the conservation authorities acting in an advisory role.

Public Information and Consultation

The Flood Plain Review Committee's recommendations attempt to improve the mechanisms for public consultation and participation in the regulatory process. Improvements were also identified as being required in public awareness and information programs. The Committee also recognized the need for better appeal mechanisms.

The Authority is of the opinion that:

1. The level of protection that should be afforded to the residents of the Metro Toronto Region should be the Regional Storm as defined by Hurricane Hazel or the 100 year whichever is greater and development would not normally be allowed within the flood plain.

2. The Conservation Authority is the appropriate agency to implement flood plain management and flood plain regulations in that it is empowered under The Conservation Authorities Act to make regulations pertaining to flood plains and has acquired the technical expertise to administer these regulations and it is the only agency with jurisdiction based on watershed boundaries.

3. The main issue with regard to flood plain management and regulations is not the standard of protection but how that standard is applied. Although the Conservation Authority is given the power to enact flood plain regulations, the policies and criteria by which the Authority administers this power are the most important factors with regard to achieving public acceptance, municipal support and at the same time achieving the Authority's water management objectives.

4. Public awareness is the key to obtaining acceptance of the Authority's flood plain management programs and flood plain regulations. Public awareness is achieved through information programs directed at both the general public and appropriate private sector areas.

5. The Authority concurs with the Flood Plain Review Committee that improvements are required in the appeal mechanisms and would support changes to the Conservation Authorities Act which would enable Authority decisions to be appealed to an independent tribunal such as the Ontario Municipal Board. This Authority would also support changes in the appeal mechanism which would allow appeals by other than the applicant. This would enable the municipality, adjacent land owner and the Minister of Natural Resources to appeal on Authority decision as well.

The five points listed above were used as a basis for discussion with both the Regional and local municipalities and as can be seen in Appendix C, these positions were supported.

AUTHORITY COMMENTS
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As indicated the following comments were based on discussions with most of Authority's member municipalities both Regional and local. For these discussions the Authority grouped the Flood Plain Review Committee's 13 recommendations into 4 major categories namely:

(1) Regulatory Flood Criteria
(2) Flood Plain Management Implementation
(3) Public Information and Consultation
(4) Appeal Mechanisms

The Authority comments are organized under these general headings rather than on each individual recommendation, due to the fact that so many of the 13 recommendations are interelated.

Regulatory Flood Criteria

The Metropolitan Toronto and Region Conservation Authority strongly believes that the Regulatory Flood for its area of jurisdiction should continue to be based on Hurricane Hazel. The question of what the regulatory flood should be was addressed by the Authority in the development of its Watershed Plan in 1980.

The selection and use of the Regional Storm as the appropriate level of protection to be afforded to the communities in the Metropolitan Toronto region in both the 1959 and 1980 plans was based on the following:

(1) Hurricane Hazel was an observed event centred over the Humber River watershed in 1954. The flood levels were recorded and establish factual data on which mapping and data projections can be based.

(2) It is not known whether Hurricane Hazel is the most severe flood event to have affected this region. Certainly, since the earliest days of settlement, flooding has been a part of life near the rivers. As communities infringed on the river flats, damage caused by flooding became more unacceptable culminating in the extensive property damage and the loss of 81 lives during Hurricane Hazel. Damaging floods have occurred in the Metro region on the average every 1-1/3 years. Many of these events are classed as severe and at least two in less than 100 years were considered to be major disasters.

In the last two decades alone there have been eleven recorded significant flooding occurrences. Hurricane Hazel was only one of 25 Tropical storms which passed over or came close to Ontario in the period 1900 to 1970. Virtually every spring flood levels exceeding the 100 year flood line due to ice jams are experienced at various locations throughout the watersheds.

(3) While the Authority was undertaking the hydrologic studies of the watersheds under its jurisdiction for its 1980 Watershed Plan, a unique opportunity was presented, when dealing with the Humber River, to analyze and compare the flood flows that occurred during Hurricane Hazel to those that result from the calculation of the Regional Storm as defined in the Conservation Authority's Regulation. The Authority carried out a study to analyze the two floods and to see if they were in fact comparable.

Upon completion of the study, considering the observed flow data that was available for the Humber River during Hazel, it was apparent that the simulated peak discharges resulting from the Regional Storm calculation are comparable. This is an important point in that in confirms that the Regional Storm as defined in the Authority's regulations correctly represents Hurricane Hazel as it actually occurred.

(4) Since the Metropolitan Toronto and Region Conservation Authority has been involved in flood plain management and regulations since 1964 and has utilized Hurricane Hazel as the standard, all municipal planning in the Metro region as it affects valley land has recognized this standard.

(5) The level of the Regulatory Flood must also take into account the particular watershed characteristics. Within The Metropolitan Toronto and Region Conservation Authority area, the river valleys are deep and well defined with relatively small flood plains. As a result flow velocities and depths are excessive and extremely hazardous. The proposition by the Flood Plain Review Committee that development could occur anywhere within the 100 year flood plain would prove disastrous in these areas.

The Authority does agree however with the Flood Plain Review Committee's report that in certain areas where the flood plain is characterized as being very wide and having shallow depths and low velocities that different criteria and approaches should be considered. Flood plains with these characteristics although not prevalent in the Metropolitan Toronto and Region Conservation Authority's area of jurisdiction, do occur in certain headwater areas.

The Authority has recognized that these areas do occur and have developed policies and criteria which recognize the necessity to deal with them on a different basis. The implementation of Master Drainage Plans for these headwater areas for example is one approach which has been used successfully to date.

For these reasons, Hurricane Hazel has been accepted as the standard for the Metro Toronto region since 1954 and was re-affirmed by the Authority and its member municipalities in 1980. For the most part, as well, the Authority's member municipalities confirmed their agreement with the existing flood plain criteria in their responses to the Flood Plain Criteria Policy Statement released by the Province early in 1983, and again in their comments being prepared on the Flood Plain Review Committee's report.

The use of the flood of record as the regulatory flood is also supported by the Minister of Natural Resources who made the following statement in his remarks to the Provincial Legislature when he tabled the Flood Plain Review Committee's Report.

> "The second thing that must be stressed is that we will not support the lowering of flood protection criteria in any part of Ontrio where the past history of flooding reveals that higher criteria would be more appropriate."

A similar statement was made by the Minister in this comments to the Standing Committee on Resources Development on the Ministry of Natural Resources budget estimates for 1984/1985 on May 23, 1984.

This further supports the Authority's position that Hurricane Hazel remain as the regulatory flood since it is the flood of record and as evidenced, the flood history for the Metropolitan Toronto and Region Conservation Authority watersheds would substantiate its use as the regulatory flood.

Flood Plain Management Implementation

The implementation of any flood plain management program must be done on a watershed basis. This is a fundamental premise that was recognized by the Province of Ontario when it enacted The Conservation Authorities Act in 1946. Unlike any other area of municipal or provincial involvement, flood plain management, which includes flood control and flood plain regulations, must be administered using the watershed as the planning unit. The implications of not proceeding on this basis would be disastrous. Flood plain policies and criteria, when developed on a political, or some other, boundary cannot deal with the natural hydraulic and hydrologic characteristics of any stream or river since they are governed by the entire watershed.

Since the Conservation Authorities Act specifically defines the Authority's area of jurisdiction as the watershed, the Conservation Authority is, therefore the logical agency to deal with flood plain management and regulations.

This very basic premise was also supported by the Minister in his comments to the Provincial Legislature when he tabled the FPRC report and said, "that flooding problems can best be managed on a watershed basis". As indicated the Authority is the only agency with a watershed based mandate.

The FPRC recommendations deal only with one aspect of flood plain management i.e. flood plain regulation. This is but one of many components included in flood plain management. Other areas such as the construction of flood control structures, flood plain acquisition programs and flood warning and forecasting are also very important aspects of flood plain management. The shifting of one component to the municipality as recommended, will only fragment and reduce the effectiveness of the Authority's total flood plain management program.

Although the Authority sees the "Standard" of protection to be afforded to the citizens of Ontario as one of the key issues to be considered by the Flood Plain Review Committee, the Metropolitan Toronto and Region Conservation Authority perceives that this is only a manifestation of the real problem which is the administration of flood plain regulations.

A reduction in the standard as suggested by the FPRC does not necessarily reduce or eliminate the debate on the issue of flood plain regulations. In fact such a decision which may seem expedient in the short term, may in the long term increase dramatically the flood risk of the citizens of Ontario.

In preparing its Watershed Plan, the Authority recognized the need for flexibility in administering flood plain regulations. This is particularly true in areas where development has historically occupied the floodplain. The Authority has, therefore, developed policies which permit flexibility in application of the standard depending on existing development and valley configuration. One such policy which the Authority has supported and contrary to the Flood Plain Review Committee's report still supports, is the "Special Policy Area" concept for existing developed areas within the flood plain. The Authority does agree however that streamlining the process of designation is required.

The success of this Authority in achieving its objectives since 1964 is more than ample justification that a common sense approach to any land use regulation is more important than the regulation standard.

The Authority in preparing its policies and operational criteria recognized that the implementation of flood plain regulations must be done in such a way as to recognize the valley type, existing development and the flood plain characteristics. As a result, Authority policies were first based on valley configuration i.e. Headwaters, Well-Defined Valleys, and Ill-Defined Valleys. These categories were further refined based on whether the flood plain was developed or undeveloped.

Finally it must also be pointed out that the existing Provincial Flood Plain Policy No. 4 states:

> "Conservation Authorities are to continue to administer fill and construction regulations, in accordance with the Conservation Authorities Act;
> Construction regulations made under the Conservation Authorities Act may be rescinded for those areas where a municipality has adopted Official Plan Policies and Zoning Bylaws which comply with the objectives of flood plain management, and in accordance with the procedural policies established by the Conservation Authority and the Ministries of Natural Resources and Municpal Affairs and Housing."
> The Authority believes this policy remains valid and should be retained. It allows the implementation of the construction regulation component of flood plain management to shift to the municipality - but at the option of the municipality, in consultation with the local Conservation Authority and relevant provincial ministries. Regulation for fill placement and alteration to waterways regulations would remain with the Conservation Authority.

Finally the recent review of the Authority's mandate and organization confirmed the Authority's role in watershed management and recommended that existing program objectives contained within the Authority's Watershed Plan remain.

Public Information and Consultation

The FPRC report makes the comment that there is a need for "full public consultation and participation in a well defined regulatory process with built in appeal provisions". The Committee notes the need for better public awareness and information regarding flood plain regulation, for an "opening up" of the regulatory process and for improvements in the way the system is administered.

Public awareness programs can always be improved. This Authority recognizes that although it has made a good effort in achieving public awareness of its regulations that continuing and additional work is needed. This is an area where the Province, the Authority and the private sector have a responsibility for public information programs related to flood plain management and regulation. Both the Province and the Authority must ensure that the regulations are made known not only to the public but also to the many organizations that represent private sector involvement in the development, sale, and financing of land. These organizations must then ensure that their members are made aware that Provincial and Authority policies and criteria apply to flood plain lands.

Sufficient financing of such information programs is required and the Province must place greater priority on this effort.

Appeal Mechanisms

The Authority is already on record as supporting a change in the present appeal mechanisms for decisions made by the Authority under its Fill Construction and Alteration to Waterways Regulations. The Authority should make a decision under its regulations based solely on technical considerations and any appeal should then be to an independent tribunal.

The Authority also believes that other parties such as the Municipalities, the Ministry of Natural Resources or adjacent property owners should also be able to appeal an Authority decision.

Should there be a change in the appeal mechanisms it must be made quite clear as to what is subject to appeal. Appeals can not challenge the existence of the regulation but only that it was drawn improperly or technically incorrect. Floodlines do not create flood plains - only delineate them. Only the Authority policies as to what may be allowed or what may not be allowed should be subject to appeal.

CONCLUSION

The debate on the issues of flood plain management has raged for at least the last 5 or 6 years. There have been various studies, reports, policy documents and reviews, each addressing problems associated with criteria, implementation policies and procedures. The latest effort in this regard is the report and recommendations of the Flood Plain Review Committee. Again there has been an attempt to resolve the inherent problems in flood plain management by dealing only with the symptoms.

Although everyone acknowledges that Conservation Authorities were set up originally on a watershed basis for two reasons:

(1) Water management can only be done on a watershed basis and;

(2) Each Watershed is unique with different characteristics, problems and needs and requiring different water management techniques and solutions.

this premise has been lost in past attempts by the Province of Ontario to apply "Provincial" standards, to flood plain management.

It is this Authority's position that the objectives of the Province of Ontario, the Conservation Authority and the Municipalities can be met, not through the setting of another "Provincial" standard but through returning to the original premise that watersheds are unique. The recognition that each watershed is subjected to different demands i.e. Urban vs. Rural and that management techniques and solutions must be developed individually, should go a long way in dealing with flood plain management issues.

The development of the various policies, management techniques and solutions must be done in conjunction with the municipalities recognizing the watershed management on a watershed basis principle and utilizing appropriate historic or design flood events as the basis for regulation.

It is with these principles in mind that the following recommendations are made with respect to the nine watersheds under the jurisdiction of the M.T.R.C.A. It is hoped however that the general approach not the specifics could be implemented across the Province and form the basis for the development of individual watershed flood plain management criteria.

RECOMMENDATIONS

1. The regulatory flood event for flood plain management for the MTRCA area of jurisdiction should continue to be the Regional Storm (Hurricane Hazel) or 1:100 year whichever is greater.

2. The selection of the regulatory flood event for any watershed should take into account watershed characteristics, land use and historic flood events.

3. The Conservation Authority, as the sole agency having watershed jurisdiction, continue to be responsible for developing and implementing comprehensive programs to meet stated objectives for flood plain management, including the administration of flood plain regulations.

4. Conservation Authorities in developing and implementing its flood plain management policies and criteria, have regard for individual watershed characteristics including valley configuration, existing development, local community interests, and Provincial and Federal flood damage reduction objectives.

5. Policy #4 of the present Provincial Flood Plain Management Policy allows municipalities to assume the responsibility for the administration of construction regulations subject to appropriate Official Plan Policies and Zoning Bylaws being in place. This policy remains valid and should be retained.

6. The use of Special Policy Area (S.P.A.) designations be continued in existing developed areas where Regional Storm criteria cannot be met. The procedures by which S.P.A. status is achieved should be reviewed in order to streamline the process.

7. The Conservation Authority, with the cooperation and support of the Province, develop public information programs with respect to flood plain management and the need for regulation of flood plain lands.

8. Appropriate mechanisms should be developed to improve public involvement and consultation prior to requesting Provincial approval of fill and construction regulations.

9. Present appeal procedures should be modified to enable appeals of Authority decisions to be heard by an independent tribunal instead of the Authority's Executive Committee.

10. Any revised appeal procedures should include provisions which would allow appeals by the Minister of Natural Resources, an affected municipality or an abutting property owner.

11. Revised appeal mechanisms must clearly identify what is subject to appeal. Only the Authority's decision or the technical accuracy of the line should be subject to appeal not the existence of the regulation.

12. Recognizing this Authority's opinion that appropriate implementation of reasonable flood plain management policies is as important or more important than the regulatory flood criteria, it is recommended that the Ministries of Municipal Affairs and Housing and Natural Resources, in conjunction with ACAO, develop comprehensive training programs for Conservation Authority staff covering the implementation and administration of flood plain regulations.